

23. A method of producing a hybrid DNA molecule having a sense strand and an anti-sense strand and in which, reading in the 5' to 3' direction, the sense strand has the sequences x_1, x_2, \dots, x_n , where n is greater than or equal to 3, the method comprising the steps of

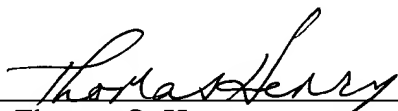
- (i) providing in a single reaction mixture
 - (a) the sequences x_1, x_2, \dots, x_n and their complementary sequences x_1', x_2', \dots, x_n' , to be assembled into the hybrid molecule,
 - (b) for each pair of complementary sequences defined in (a) a respective pair of PCR primers each having a priming sequence and which are such that the primers for the 3' ends of any two sequences ($x_i, x_{(i+1)}'$), where i is 1 to $(n-1)$, have specifically complementary linker sequences connected to their respective priming sequences via an adenine residue, and
- (2) effecting a PCR reaction using a polymerase which adds a 3' adenine overhang to the end of an extended strand.--

REMARKS

Consideration and allowance of the above application is requested.

Respectfully submitted,

By: _____



Thomas Q. Henry
Reg. No. 28,309
Woodard, Emhardt, Naughton
Moriarty & McNett
Bank One Center/Tower
111 Monument Circle, Suite 3700
Indianapolis, IN 46204-5137
(317) 634-3456